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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,130

12/31/2003

Paul Marinier

I-2-0462.1US

9778

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VOLPE AND KOENIG, P.C.  
DEPT. ICC  
UNITED PLAZA, SUITE 1600  
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EXAMINER

ZHU, BO HUI ALVIN

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/750,130

Applicant(s)

MARINIER, PAUL

Examiner

Bo Hui A. Zhu

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-17 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 3, 5, 9 and 11 are objected to because of the following informalities:

There are typographic errors in each of these claims: the subject matter "connection even" should be "connection event". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 – 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and 7, respectively recites the limitation "the call". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al. (US 6,363,252) in view of Salonaho et al. (US 6,317,600) and further in view of Jain et al. (US 2004/0185868).

(1) with regard to claim 1:

Hamalainen et al. discloses a system, comprising: measuring the interference level in a candidate timeslot (column 6, lines 20 - 61); measuring the path loss between a base station and a WTRU (wireless transmit/receiver unit) (column 5, lines 45 - 50); measuring the total transmit power of the base station (column 6, lines 1 - 15); determining a fading average signal-to-interference ratio (column 7, lines 16 - 30).

Hamalainen et al. does not disclose determining a thermal noise level; and a ratio  $R$ , wherein if the ratio  $R$  is above a certain threshold the connection event will be accepted and if below the threshold it will be rejected.

Jain et al. teaches determining a thermal noise level (paragraph [0018]). It would have been desirable to determine the thermal noise level because it would make estimation for the load of the network more accurate by taking into account the effect of thermal noise in the network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Jain et al. in the system of Hamalainen et al.

Salonaho et al. teaches calculating a ratio  $R$ , wherein if the ratio  $R$  is above a certain threshold a connection event will be accepted and rejected if below the threshold (column 5, lines 6 - 25; column 6, 1 - 10;  $L$  is a ratio and  $K$  is a threshold; and reducing the load is a connection event). It would have been desirable to calculate a ratio,

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wherein if the ratio is above a certain threshold a connection event will be accepted and rejected if below the threshold because it would improve the quality of the network and prevent overload situation from happening in the network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Salonaho et al. in the system of Hamalainen et al.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granlund et al. (US 5,710,974) in view of Salonaho et al. (US 6,317,600) and Jain et al. (US 2004/0185868) and further in view of Brouwer (US 6,760,303).

(1) with regard to claim 2:

Granlund et al. further discloses the base station and the WTRU are within the same cell (column 4, lines 30 – 32). However, Granlund et al. does not disclose obtaining a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell.

Brouwer teaches obtaining a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell (column 9, lines 55 – 63). It would have been desirable to obtain a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell because it would provide a more accurate measurement for determining the power received by the base station.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Brouwer in the system of Granlund et al.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granlund et al. (US 5,710,974) in view of Hamalainen et al. (US 6,363,252), Salonaho et al. (US 6,317,600) and Jain et al. (US 2004/0185868).

(1) with regard to claim 7:

Granlund et al. discloses a system, comprising: measuring the interference level in a candidate timeslot (column 5, lines 44 - 47); measuring the path loss between a base station and a WTRU (wireless transmit/receiver unit) (column 5, lines 35 - 40); determining the transmission power of an existing connection that is similar to the connection event (column 6, line 1).

Granlund et al. does not disclose measuring the total transmit power of the base station; determining a thermal noise level; and a ratio R, wherein if the ratio R is above a certain threshold the connection event will be accepted and if below the threshold it will be rejected.

Hamalainen et al. teaches measuring the total transmit power of the base station (column 6, lines 1 - 15). It would have been desirable to measure the total transmit power of the base station because it would make decision for processing handoff more accurate. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Hamalainen et al. in the system of Granlund et al.

Jain et al. teaches determining a thermal noise level (paragraph [0018]). It would have been desirable to determine the thermal noise level because it would make estimation for the load of the network more accurate by taking into account the effect of

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thermal noise in the network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Jain et al. in the system of Granlund et al.

Salonaho et al. teaches calculating a ratio  $R$ , wherein if the ratio  $R$  is above a certain threshold a connection event will be accepted and rejected if below the threshold (column 5, lines 6 – 25; column 6, 1 - 10;  $L$  is a ratio and  $K$  is a threshold; and reducing the load is a connection event). It would have been desirable to calculate a ratio, wherein if the ratio is above a certain threshold a connection event will be accepted and rejected if below the threshold because it would improve the quality of the network and prevent overload situation from happening in the network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Salonaho et al. in the system of Granlund et al.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granlund et al. (US 5,710,974) in view of Hamalainen et al. (US 6,363,252), Salonaho et al. (US 6,317,600) and Jain et al. (US 2004/0185868) and further in view of Brouwer (US 6,760,303).

(1) with regard to claim 8:

Granlund et al. further discloses the base station and the WTRU are within the same cell (column 4, lines 30 – 32). However, Granlund et al. does not disclose obtaining a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell.

Brouwer teaches obtaining a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell (column 9, lines 55 – 63). It would have been desirable to obtain a value which relates to the link gain between a base station and a WTRU operating in an adjacent cell because it would provide a more accurate measurement for determining the power received by the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the method as taught by Brouwer in the system of Granlund et al.

#### ***Allowable Subject Matter***

9. Claims 3 – 6 and 9 - 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. Claims 13 - 17 are allowed.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bo Hui A. Zhu whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BZ

July 18, 2007



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